Volume II

Reports and Data Required by Federal Rule

Reports below are in the order of federal regulation. Federal requirements are in bold type and the Missouri Department of Natural Resources' response follows each requirement. Responses that are data tables will be found in the Attachments.

Note that tables are from the automated tracking system for the Gateway Clean Air Program called Data Record Access. The tables may contain several types of data and each may meet more than one federal record-keeping requirement. For some data requirements, two tables must be used, one for idle tests and another for transient (IM240) test information.

TITLE 40--PROTECTION OF ENVIRONMENT

CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY

SUBCHAPTER C--AIR PROGRAMS

PART 51--REQUIREMENTS FOR PREPARATION, ADOPTION, AND SUBMITTAL OF IMPLEMENTATION PLANS

SUBPART S--INSPECTION/MAINTENANCE PROGRAM REQUIREMENTS

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§ 51.366 Data analysis and reporting.

Data analysis and reporting are required to allow for monitoring and evaluation of the program by program management and EPA, and shall provide information regarding the types of program activities performed and their final outcomes, including summary statistics and effectiveness evaluations of the enforcement mechanism, the quality assurance system, the quality control program, and the testing element. Initial submission of the following annual reports shall commence within 18 months of initial implementation of the program as required by § 51.373 of this subpart. The biennial report shall commence within 30 months of initial implementation of the program as required by § 51.373 of this subpart.

(a) ***Test data report.*** **The program shall submit to EPA by July of each year a report providing basic statistics on the testing program for January through December of the previous year, including:**

Because the Gateway Clean Air Program began testing in April 2000, the Department of Natural Resources was given until October 2001 to submit this annual report to the Environmental Protection Agency. The following responses cover data gathered from April

through December 2000. Note: The Gateway Clean Air Program tested twelve months of vehicles in the nine months of 2000 that the stations were operational.

(1) The number of vehicles tested by model year and vehicle type;

See Attachment 1 – Vehicles Tested Report.

(2) By model year and vehicle type, the number and percentage of vehicles:

(i) Failing initially, per test type;

See Attachment 2 – Vehicle Summary Report. Note: 1981 and newer vehicles in the enhanced area are tested with IM240 equipment. If they cannot be safely tested on the IM240 equipment, then they are tested with a two-speed idle test. All vehicles in the basic area and all 1971 to 1980 model year vehicles in the enhanced area are tested with a single-speed idle test.

(ii) Failing the first retest per test type;

See Attachment 3 – Initial Reinspection Idle Emissions Failure and Initial Reinspection Transient Emissions Failure Reports. Note: The Initial Reinspection Idle Emissions Failure Report includes both enhanced area and basic area vehicle test results.

(iii) Passing the first retest per test type;

See Attachment 4 – Initial Reinspection Idle Emissions Passed and Initial Reinspection Transient Emissions Passed Reports. Note: The Initial Reinspection Idle Emissions Passed Report includes both enhanced area and basic area vehicle test results.

(iv) Initially failed vehicles passing the second or subsequent retest per test type;

See Attachment 5 – Multiple Reinspection Idle Emissions Passed and Multiple Reinspection Transient Emissions Passed Reports. Note: The Multiple Reinspection Idle Emissions Passed Report includes both enhanced area and basic area vehicle test results.

(v) Initially failed vehicles receiving a waiver; and

See Attachment 2 – Vehicle Summary Report and Attachment 6 – Waiver Report.

(vi) Vehicles with no known final outcome (regardless of reason).

Data Record Access queries show that 6,898 unique vehicles were emission tested in the first year without a record of a passing inspection or a waiver. However, during this reporting period, this data was not verified against registration data. The Department is working the DOR to develop a mechanism for identifying these vehicles. No analysis of records or other action was taken to determine if registration requirements were circumvented or if these disappearing vehicles were relocated out of the St. Louis area or destroyed. If any of these "disappearing" vehicles were relocated or destroyed, there is a positive air quality benefit for the St. Louis area.

It can be surmised that there was some customer confusion when the Gateway Clean Air Program started – an annual decentralized I/M program was replaced with a biennial centralized I/M program. Some odd model year vehicles in the enhanced area that were not subject to an emission test in 2000 may have been tested and may have failed. The owners of these vehicles may have ignored the failing results, because a passing emissions test was not required for registration purposes.

In addition, there have been a substantial number of reports of license plate sticker theft in the St. Louis area. The number of such thefts in St. Louis is high, but not out of proportion to the other major metropolitan areas in Missouri. The GCAP windshield sticker is secure inside the vehicle, but the registration sticker on the vehicle license plate designating a current registration can be stolen and all the registration requirements (emissions test, safety inspection, property tax, and vehicle insurance) avoided by the illegal user. This issue could also account for the some of the disappearing vehicles.

(vii)-(x) [Reserved]

(xi) Passing the on-board diagnostic check;

(xii) Failing the on-board diagnostic check;

(xiii) Failing the on-board diagnostic check and passing the tailpipe test (if applicable);

(xiv) Failing the on-board diagnostic check and failing the tailpipe test (if applicable);

(xv) Passing the on-board diagnostic check and failing the I/M gas cap evaporative system test (if applicable);

(xvi) Failing the on-board diagnostic check and passing the I/M gas cap evaporative system test (if applicable);

(xvii) Passing both the on-board diagnostic check and I/M gas cap evaporative system test (if applicable);

(xviii) Failing both the on-board diagnostic check and I/M gas cap evaporative system test (if applicable);

For reporting requirements (xi) - (xviii), see Attachment 7 – OBD II Report. Note: The Gateway Clean Air Program has been collecting this OBD information, but has not begun to use the OBD test as a pass/fail criteria. Furthermore, during the reporting period, the OBD connectivity rate has been less than ideal due to lane staff training and lane software deficiencies. Therefore, while the percentage data in this attachment is useful for trend analysis, the raw data in this report does not reflect the actual number of OBD II-equipped vehicles that were emission tested during the reporting period.

(xix) MIL is commanded on and no codes are stored;

(xx) MIL is not commanded on and codes are stored;

(xxi) MIL is commanded on and codes are stored;

(xxii) MIL is not commanded on and codes are not stored;

(xxiii) Readiness status indicates that the evaluation is not complete for any module supported by on-board diagnostic systems;

For reporting requirements (xix) - (xxiii), see Attachment 8 – MIL Versus Codes OBD II Report. Note: During the reporting period, the OBD connectivity rate has been less than ideal due to lane staff training and lane software deficiencies. Therefore, while the percentage data in this report is useful for trend analysis, the raw data in this report does not reflect the actual number of OBD II-equipped vehicles that were emission tested during the reporting period.

(3) The initial test volume by model year and test station;

(4) The initial test failure rate by model year and test station; and

For reporting requirements (3) and (4), see Attachment 9 – Initial Test Volume, Initial Failure Rate by Vehicle Type and Initial Inspection Detail Reports. Note: In the Initial Inspection Detail Report, Stations 1-10 are located in the enhanced area and Stations 11-16 are located in the basic area. Stations 15 and 16 represent the mobile testing units that rotate between six Franklin County sites each week.

(5) The average increase or decrease in tailpipe emission levels for HC, CO, and NOX (if applicable) after repairs by model year and vehicle type for vehicles receiving a mass emissions test.

See Attachment 10 – Repair Emissions Reduction Report. Values that are enclosed in parentheses represent an increase, not a decrease, in the average tailpipe emissions for a particular model year and vehicle type. A value in parentheses indicates that, on average, the repairs for that model year and vehicle type were ineffective. While some model years and vehicle types received ineffective repairs during the reporting period, the Gateway Clean Air Program is showing a net reduction in tailpipe emissions. This issue is discussed in greater detail in Volume 1 of the Annual Reports.

(b) ***Quality assurance report.*** **The program shall submit to EPA by July of each year a report providing basic statistics on the quality assurance program for January through December of the previous year, including:**

(1) The number of inspection stations and lanes:

(i) Operating throughout the year; and

The Gateway Clean Air Program station network consists of ten enhanced test stations with a combined total of 35 lanes and two basic test stations in Franklin County with a combined total of six lanes. In addition to these 41 permanent test lanes, two mobile testing units rotate each week between six sites in Franklin County. The Gateway Clean Air Program RapidScreen network consists of as many as nine Rapid Screen vans rotated among at least 50 sites throughout the reporting period.

The Gateway Clean Air Program began on January 1, 2000. However, the emissions test stations did not begin testing vehicles until April 5, 2000. Even model year vehicles in the enhanced area with January, February, March, and April license plates were given temporary emission extension stickers until later in the year. Therefore, although the enhanced test stations were only open for nine months of the year, all twelve months of vehicles were inspected during the first year. Because the basic area had never had an emission inspection requirement prior to the start of the Gateway Clean Air Program, basic area vehicles with January, February and March license plates were not required to have an emission inspection.

(ii) Operating for only part of the year;

Each enhanced test station was required to have one lane capable of conducting four-wheel drive IM240 testing. Although all of the test lanes were ready to conduct two-wheel drive IM240 tests as of April 5, 2000, the four-wheel drive test lanes were not operational until August 1, 2000. Therefore, all four-wheel drive, all-wheel drive, or

full-time traction control vehicles tested in the enhanced area during the first five months of the program received a two-speed idle test.

A few lane closures due to mechanical problems did occur. The North County—Florissant station closed lane three for eight days. The Mid-County—Olivette station closed lane five for five days. The North Jefferson County—Arnold station closed lane three for two days. For these 13 days of single lane closures, the contractor was assessed liquidated damages as specified in the contract.

In addition, station closures due to weather-related incidents did occur. For example, due to heavy winds, a few stations suffered electrical power outages. In addition, the mobile testing units in Franklin County were occasionally closed due to tornado warnings or severe windchills (-25 °F).

Other than these unpredicted closures, lanes that were actually operational may not have been used during days with low test volumes of vehicles presented for testing. During days with low test volumes, lanes were opened and operated as test volume dictated.

(2) The number of inspection stations and lanes operating throughout the year:

(i) Receiving overt performance audits in the year;

934 overt performance audits were performed during the reporting period.

The Department conducts several types of overt audits: Level I, Level IIa, Level IIb, and Level III.

Level I audits:

- Are customer-oriented and primarily look at Lane Performance from the perspective of Lane Inspector Proficiency;
- Are triggered by customer complaints that often are tied to misperceptions or misunderstandings about the test process;
- Provide opportunities for Department outreach to the public and assurance that lane performance is as it is supposed to be; and
- Incorporate facility reviews with a focus toward accommodating able-bodied and disabled customers.

Level IIa audits:

- Are lane performance-oriented and consist of equipment and personnel inspections. DNR auditors are responsible for the quality assurance and quality control of the emissions testing process.

Level IIb audits:

- Are station-oriented and focus on data collection and analysis. The information analyzed during a Level IIb audit may be located within the program's Data Record Access system, or may be the result of field investigations and external manual data logging.
- May involve audits of the repair industry. In order to prevent vehicle repair fraud, DNR auditors are responsible for this consumer protection element of the Gateway Clean Air Program.

Level III audits:

- Incorporate the features of Level I and II audits; and
- Include functional tests of equipment, station performance data analysis (both electronic and paper-based), document security audits, and personnel audits.

The Enhanced and Basic Area stations (all lanes) received 161 Level I audits. All station lanes and mobile units received 748 Level IIa audits. There were 25 program-wide or special audits at Level IIb. While there were no Level III audits performed during the reporting period, the Department's Quality Assurance Unit is currently transitioning Level I and Level II efforts to full-blown Level III efforts.

The Department's St. Louis Regional Office staff did perform an accessibility audit of the testing facilities for compliance with Americans with Disabilities Act (ADA). Because these facilities were built to uniform standards and are nearly identical in design, auditors randomly selected one enhanced area and one basic area test station for audit. Auditors interviewed the design and construction manager for the project to confirm that architects were commissioned to meet or exceed new building requirements under ADA. The auditors then conducted on-site inspections of the two stations using the current version of the Barrier Removals Checklist for Existing Structures as provided by the National Institute on Disability and Rehabilitation Research. The outcome from execution of the protocol was that facilities are effectively compliant with ADA and barrier-free. Results of this audit are available by contacting the St. Louis Regional Office at (314) 301-7600.

During the transition period from January 2000 – April 5, 2000, Department auditors performed 136 audits of the facilities and BAR90 equipment that were authorized to perform transfer of ownership emission testing for used vehicles being sold by automobile dealerships. All authorized testing facilities with BAR90 analyzers were in compliance prior to the enhanced emission program start up in April 2000.

Between February 24, 1999, when the contract was signed, and April 5, 2000, when vehicle emission testing began, Department staff performed construction audits of each of the facilities on a weekly basis – approximately 480 audits in total. Audits involved review of blueprint specifications with on-site verification that the blueprints were being followed. Progress plans were reviewed and verified to ensure the facilities would be operational by April 5, 2000.

(ii) Not receiving overt performance audits in the year;

None. All stations received overt performance audits during this period.

(iii) Receiving covert performance audits in the year;

Two-hundred and sixty five covert performance audits were performed on the enhanced and basic test stations and the RapidScreen vans. In addition, videotape review of the enhanced test lanes and random checks of the toll-free information line were performed.

Department covert audit staffing levels were at a minimum during the first year of the program. Covert vehicles for use by Department staff were not available during the period covered by this report because they had not been purchased. Instead, private vehicles owned by St. Louis Regional Office staff were utilized to perform 23 covert audits of eight of the ten enhanced stations: North City – West Florissant, South City – South Kingshighway, North County – Florissant, Mid-County – Olivette, West County – Manchester, East St. Charles County, North Jefferson County – Arnold and South Jefferson County – Herculaneum. These covert audits encompassed Level IIa audit procedures, which are lane staff performance-oriented and consist of equipment and personnel observations to evaluate quality control. These covert audits were also performed in response to citizen complaints about test fee refund issues.

In addition to on-site covert audits, Department audit staff reviewed over 50 hours of videotapes made each day for each of the enhanced station lanes. Customer complaints, concerns raised by Data Record Access reviews, and regular random reviews of one or more videotapes from each station were performed.

Department covert audit staff also conducted remote surveillance of the operations of all test facilities and the Franklin County mobile emission test vans 37 times during this period.

The RapidScreen vans were covertly audited by Department staff 150 times during this period. These audits primarily consisted of program staff driving to and through the announced RapidScreen test locations. These audits verified the RapidScreen vans were on site and operating at the times the contractor had agreed upon. After passing through the location, the audit staff would stop and visually verify that the van equipment had recorded their test record. The test equipment's ability to determine the validity of the reading was also tested.

Department staff called the toll-free information line to audit both the message being delivered and the operator's knowledge as judged by responses to questions similar to those asked by citizens.

Unannounced technical Quality Assurance reinspections were performed for 55 motorists at the test facility where the motorist perceived problems. The majority of these audits confirmed the management and lane staff were performing the test procedure correctly, and that it was the motorist's perception of what was occurring which led to the complaint. Managers and lane staff were verbally informed of any procedural or customer service issues found to be in their control. The Operations Manager who oversees all of the stations for the contractor was also informed of any outstanding issues with the test process and responded with appropriate policy guidelines and staff training.

The Department's St. Louis Regional Office worked very hard in preparation to conduct covert auditing. The office aggressively sought to hire staff, including environmental specialists and motor mechanics. The department also planned for the construction and lease of a Quality Assurance Facility. The facility will have a complete IM240 test lane of the exact same type used in the enhanced stations and a work bay with a vehicle lift. The facility will be available to the public for emission test verification, or referee, purposes if motorists have questions about the validity or accuracy of the tests performed at the test stations. It will also be used for staff and repair technician educational purposes, as well as the staging of covert vehicles. While the Request for Proposals for the construction of this facility was made available on September 15, 1999, no bid was accepted during this reporting period.

(iv) Not receiving covert performance audits in the year; and

None. All stations received some form of covert performance audit.

(v) That have been shut down as a result of overt performance audits;

Overt audits conducted by the Department staff have resulted in several operational changes that the contractor has implemented. For example, the wait time ticket tracking procedure has been clarified, and signage in and around the building has been improved. However, no emission test facility or emission test lane was shut down as a result of an overt audit.

Audits performed during the transition period between January 1 and April 5, 2000, on facilities using BAR90 analyzers to emission test automobile dealership vehicles resulted in the lock out of BAR90 analyzers 47 times after the initial audit and 9 times after a second audit.

(3) The number of covert audits:

(i) Conducted with the vehicle set to fail per test type;

(ii) Conducted with the vehicle set to fail any combination of two or more test types;

In response to reporting requirements (i) - (ii), Department audit staff were unable to perform covert audits using vehicles with failing emission levels. Covert audit staffing levels were at a minimum during the first year of the program. In addition, because the Quality Assurance Facility had not been constructed, covert vehicles were not purchased. Because the Quality Assurance Facility was not yet available, the motor mechanics needed to perform the vehicle staging aspects of covert auditing were not hired during the reporting period.

(iii) Resulting in a false pass per test type;

(iv) Resulting in a false pass for any combination of two or more test types;

In response to reporting requirements (iii) - (iv), no false passes were received during any of the 23 covert audits performed on private vehicles owned by St. Louis Regional Office staff.

(v)-(viii) [Reserved]

(4) The number of inspectors and stations:

Note: Reporting requirements (4) through (7) apply primarily to decentralized, or test and repair, I/M programs, while the Gateway Clean Air Program is a centralized, or test only, I/M program. Because the Department has a contract with one company that operates all of the testing stations, the Department does not take action against specific inspectors or individual stations. Instead, the Department works with ESP Missouri to resolve all issues revealed during quality assurance audits. That said, the Department has responded to reporting requirements (4) through (7) as they apply to the Gateway Clean Air Program.

(i) That were suspended, fired, or otherwise prohibited from testing as a result of covert audits;

The covert audits conducted by the Department did not result in any inspectors being suspended or fired or in any stations from being prohibited from testing.

(ii) That were suspended, fired, or otherwise prohibited from testing for other causes; and

The contractor, ESP Missouri, regularly took action with employees who behaved inappropriately or unprofessionally. Such behavior included discourtesy to customers, incorrectly following test procedure and fraud concerning the test or test

fee collection. Where appropriate, the Department supplemented these personnel actions with evidence of wait time fraud and/or poor job performance. In most cases, ESP Missouri retrained their employees. In a few cases, station staff were fired by ESP Missouri.

(iii) That received fines;

The Department cannot fine inspectors or stations. Instead, the Department asks the state's contract officer, known as the Buyer of Record, to assess liquidated damages for excursions from the requirements of the contract. On February 28, 2001, the Buyer of Record assessed liquidated damages in the amount of $819,170 for contractual violations during the reporting period.

(5) The number of inspectors licensed or certified to conduct testing;

In total, ESP Missouri employed a total of 680 station staff for 275 positions during the first year of operation. The number of inspectors varied considerably throughout the reporting period, especially in the first few months of the program. The nature of the work, the pay scale offered, and the seasonal vehicle registration rates lead to a high turnover rate. Busy periods and adverse weather occasionally corresponded with high number of station staff resignations. The contractor ran bi-monthly training sessions during the reporting period to recruit new staff and maintain optimum staff levels.

The Missouri Department of Natural Resources does not currently license or certify the emission test facility management staff or inspectors. The contractor is required to employ and train individual inspectors. The Department has approved the training program contents and duration of training, specific to the job (Station Managers, Lead Lane Inspectors, and Lane Inspectors). Department staff attended training courses to ensure compliance with the contract and Department goals. Employees successfully completing classroom or self-directed computer-assisted training and in-lane IM240 trace driving training and practice became certified lane inspectors.

(6) The number of hearings:

(i) Held to consider adverse actions against inspectors and stations; and

(ii) Resulting in adverse actions against inspectors and stations;

The Missouri Department of Natural Resources did not hold hearings for violations noted by inspectors. When violations of contract, rule, or test procedures are noted by the Department, ESP Missouri management is notified. The contractor takes the disciplinary action they feel is appropriate against any employee that is not following company policy or contract guidelines.

The Department does have the authority to request retraining or dismissal of employees found to be not following policies and procedures established by the contractor. However, the Department did not make any such requests during the reporting period.

(7) The total amount collected in fines from inspectors and stations by type of violation;

The Department does not collect fines from individual inspectors or stations for contractual violations. Instead, liquidated damages are sought from the contractor as described in section (4) (iii) above. No liquidated damages were collected during the reporting period.

(8) The total number of covert vehicles available for undercover audits over the year; and

There were 23 private owned vehicles used to perform covert audits this reporting period.

(9) The number of covert auditors available for undercover audits.

During this reporting period, the Department employed two Environmental Specialists, one of whom left in August 2000, to perform covert audits on operations at the stations. The audit staff recruited four other I/M and Regional Office staff to covertly audit stations.

(c) ***Quality control report.*** **The program shall submit to EPA by July of each year a report providing basic statistics on the quality control program for January through December of the previous year, including:**

(1) The number of emission testing sites and lanes in use in the program;

The Gateway Clean Air Program station network consists of ten enhanced test stations with a combined total of 35 lanes and two basic test stations in Franklin County with a combined total of six lanes. In addition to these 41 permanent test lanes, two mobile testing units rotate each week between six sites in Franklin County. The Gateway Clean Air Program RapidScreen network consists of as many as nine Rapid Screen vans rotated among at least 50 sites throughout the reporting period.

Other than unpredicted closures due to mechanical failures or weather incidents, lanes that were actually operational may not have been used during days with low test volumes of vehicles presented for testing. During days with low test volumes, lanes were opened and operated as test volume dictated.

(2) The number of equipment audits by station and lane;

Department auditors participated in acceptance testing prior to startup of the program in March 2000 and thereafter. The same auditors observed startup and continued to periodically observe calibrations of the analytical and operational equipment. Department auditors made no independent tests of contractor equipment during this period. Software is routinely audited and all new software issues are screened following *ad hoc* acceptance test procedures. All lanes and mobile units were observed. Auditors use the Statistical Process Control (SPC) capability of the computer systems to further analyze the test lanes for potentially sub-par calibration or faulty equipment.

All lanes and mobile units received Level IIa audits. There were 25 program-wide or special audits at Level IIb. There were no Level III audits performed as this program was in its startup year. A rigorous acceptance test procedure had been conducted in March, April and May of 2000 on software and equipment. Acceptance testing is continual with regard to software. Refer to subsection (b) (2) (i) for additional information on auditing.

(3) The number and percentage of stations that have failed equipment audits; and

Of the 748 Level IIa audits performed, 15 lanes, or two percent, failed the equipment audit. Department auditors found that ESP Missouri was responsive to replacing or maintaining faulty equipment in response to system flags or other performance history as noted in the SPC data. ESP Missouri also responded to auditor recommendations related to equipment condition (e.g. condition of hoses, filters, tachometers, cabinet operating temperatures, etc.) in a timely manner.

(4) Number and percentage of stations and lanes shut down as a result of equipment audits.

The contractor either closed lanes or did not open lanes that could not be correctly calibrated or that could not pass audits. The contractor reopened these lanes after successful repairs and the test equipment passed functionality checks. No lanes or stations were shut down as a result of Department equipment audits.

(d) ***Enforcement report.***

(1) All varieties of enforcement programs shall, at a minimum, submit to EPA by July of each year a report providing basic statistics on the enforcement program for January through December of the previous year, including:

(i) An estimate of the number of vehicles subject to the inspection program, including the results of an analysis of the registration database;

The Department analyzed the Missouri Department of Revenue's vehicle registration database prior to the start of the Gateway Clean Air Program. The Department estimated that 1.28 million vehicles were subject to the Gateway Clean Air Program.

(ii) The percentage of motorist compliance based upon a comparison of the number of valid final tests with the number of subject vehicles;

For the reporting year, 617,401 emission tests, including station-based tests and RapidScreen redemptions, were performed. These tests include vehicle transfers (used vehicles sold and required to be reinspected) and some federal, state and local government fleet vehicles that are not on the registration database (less than 1,000). These tests also include a small number of vehicle owners that were confused by the biennial test cycle and tested odd model vehicles in 2000.

Assuming that roughly half of the 1.28 million vehicles should have been emission inspected during the first year of the Gateway Clean Air Program, then 640,000 vehicles should have received an emission test. Since only 617,401 vehicles were tested, the percentage of motorist compliance was 96.5 percent.

The Department expects that this compliance rate will be higher in 2001. Even model year vehicles in the enhanced area with January through April registrations were given temporary extensions until later in 2000. In some cases, however, these even model year vehicles were not emission tested until the first four months of 2001. Therefore, the 2001 compliance rate may be artificially inflated.

(iii) The total number of compliance documents issued to inspection stations;

During the reporting period, 756,599 compliance documents were issued to inspection stations. At the end of the reporting period, 136,983 compliance documents were unused.

There are two types of compliance documents: VTRs and mini-VTRs.

- ESP Missouri distributes Vehicle Test Reports (VTR) and window stickers to all of the stations for station-based tests. VTR forms are issued to motorists for each vehicle tested at a station, regardless of test result (pass, fail, waiver). However, window stickers are only issued for vehicles that pass the emission test or receive a waiver.
- Mini-VTR forms are mailed to motorists for each vehicle that completes the RapidScreen process. After receiving payment, ESP Missouri mails mini-VTRs and window stickers to motorists who redeem their RapidScreen notifications.

(iv) The number of missing compliance documents;

During the reporting period, there were no missing compliance documents. ESP Missouri is responsible for compliance document security. The security measures include the following:

Design: The VTR forms are designed so that fraudulent duplication is quite difficult. a) The test-specific information is printed on the VTR form in a different color than the pre-printed information, so photocopies are easily identifiable. b) The test-specific information includes bar coded information, which is difficult to simulate. c) The VTR forms are serially numbered, so that each form is unique.

Transport: The transport of VTR forms from the company that prints the forms to ESP Missouri's headquarters to the individual test stations is tracked via a chain of custody system.

Use: a) The VTRs are stored in locked printer cabinets or in locked rooms while they are at the test stations. b) A tracking log is used to ensure that every lane inspector accounts for every VTR issued from their lane. c) ESP Missouri conducts random internal audits to ensure that the daily tracking logs are being maintained and that the VTR forms are being securely stored.

(v) The number of time extensions and other exemptions granted to motorists; and

The Gateway Clean Air Program stations became operational April 5, 2000. The even model year vehicles due to be registered in the first four months of 2000 were registered on time without an emission test. Vehicles due for registration of the license in May and later months were required to either receive a station-based emissions test or redeem a RapidScreen notice.

Motorists with January- through April-registered even-model year vehicles received a temporary emission inspection extension certificate and temporary windshield sticker in the mail at about the same time they received their registration papers. The extension permitted motorists to register their vehicle on-time and have their emissions testing done later in the year after the new emission test stations were operational. Approximately 75,400 such temporary extensions were issued.

The temporary emission inspection extension stickers expired on July 31, 2000, for vehicles scheduled for registration in January, on September 30, 2000, for vehicles scheduled for registration in February, on November 30, 2000, for vehicles scheduled for registration in March, and on December 31, 2000, for vehicles scheduled for registration in April.

Time extensions are also given by the Missouri Department of Revenue (DOR) for vehicles located in another state at the time of registration renewal. Motorists with

these vehicles are allowed to renew their registrations via mail, but must have the vehicle emission inspected within 10 days of returning to the St. Louis area. The number of Out of State extensions granted was not tracked by the DOR during the reporting period.

Some vehicles are subject to an emission inspection requirement because of the county where the vehicle is property taxed, but are exclusively operated outside the ozone nonattainment area. Examples include vehicles used by family members away at college or on vacation or farm property outside of the St. Louis area. Out of Area Waivers, valid for the period of registration, are given to motorists of such vehicles. During the reporting period, 168 Out of Area Waivers were granted by DNR to vehicles from the enhanced area. The number of Out of Area Waivers granted to vehicles from the basic area were not tracked by the DOR during the reporting period.

For information regarding these statutory extensions and exemptions and the forms needed for these cases, please visit the following website: http://www.gatewaycleanair.com/needtest/outside.htm.

(vi) The number of compliance surveys conducted, number of vehicles surveyed in each, and the compliance rates found.

Compliance for the temporary emission inspection extensions depended on DOR enforcement. No extra sticker enforcement or registration renewal enforcement program was initiated to enforce the requirement to receive an emissions test and replace the special extension sticker with a valid emissions test sticker.

In the first four months of 2001, many registration renewal offices required motorists with even model year vehicles to show proof of a 2000 emission inspection before registering such vehicles. If no proof was available, the motorist was required to obtain a 2001 inspection for their even model year vehicle. Analysis of January 2000 to April 2001 test volumes indicates that 99.4% of the vehicles that were due for an emission inspection during theses months were tested. In other words, although not all twelve months of even model year vehicles that should have been emission tested in the first year were tested, 99.4% of the even and odd model year vehicles that should have been emission tested in the first sixteen months were tested.

No parking lot surveys or other compliance checks were conducted during the reporting period.

(2) Registration denial based enforcement programs shall provide the following additional information:

(i) A report of the program's efforts and actions to prevent motorists from falsely registering vehicles out of the program area or falsely changing

fuel type or weight class on the vehicle registration, and the results of special studies to investigate the frequency of such activity; and

During the reporting period, no specific efforts or actions were taken to prevent motorists from avoiding the emission inspection requirement. While the Department cannot quantify the frequency of falsely registered vehicles, the Department is comfortable with the security of the registration-denial system described below.

To register a gasoline-powered passenger vehicle in the St. Louis area, proof of compliance with the emissions testing program (a VTR from a station-based test or a mini-VTR from a RapidScreen test) must be presented to the vehicle registration office. Vehicle registration is denied if such proof is not provided.

The Department of Revenue's Driver and Vehicle Services Bureau oversees both state-run licensing branch offices and "fee offices" run by private business under contract to DOR. An official DOR policy memo, reviewed and approved by the Department of Natural Resources, has been sent to all branch and fee offices that describes the registration procedures for all vehicles subject to the Gateway Clean Air Program. License clerks in these offices are trained on the requirements of the emissions test program and on recognition of legitimate certificates.

Vehicles with gross vehicle weight ratings over 8,500 pounds GVWR are exempted from the emission inspection requirement if the motorist shows proof to license clerks on either a vehicle refusal form from the emission test station or on a state safety inspection certificate.

(ii) The number of registration file audits, number of registrations reviewed, and compliance rates found in such audits.

The Department did not audit or review any registration files during this reporting period. DOR conducted audits of three branch offices in the St. Louis area during the reporting period, although not with the Gateway Clean Air Program specifically in mind. There were no problems found at these three branch offices.

(3) Computer-matching based enforcement programs shall provide the following additional information:

The Gateway Clean Air Program is not enforced with a computer-matching system, although ESP Missouri sends the Missouri Department of Revenue vehicle test results for all passing (station-based and RapidScreen) and waved vehicles. This information is then made available to all vehicle registration offices on a main-framed Emission Verification System that serves as a backup confirmation system should a motorist lose their vehicle's emission test results after the test but before registering their vehicle.

(i) The number and percentage of subject vehicles that were tested by the initial deadline, and by other milestones in the cycle;

(ii) A report on the program's efforts to detect and enforce against motorists falsely changing vehicle classifications to circumvent program requirements, and the frequency of this type of activity; and

(iii) The number of enforcement system audits and the error rate found during those audits.

(4) Sticker-based enforcement systems shall provide the following additional information:

The Gateway Clean Air Program is not enforced with a sticker-based system, although a windshield sticker is issued to vehicles that pass an emissions test (station-based or RapidScreen) or receive a waiver. The purpose of the windshield sticker is to assist law enforcement officers in registration confirmation during other traffic stops. The sticker also will allow the Department to conduct random parking lot surveys and government fleet compliance rate analysis.

(i) A report on the program's efforts to prevent, detect, and enforce against sticker theft and counterfeiting, and the frequency of this type of activity;

(iii) A report on the program's efforts to detect and enforce against motorists falsely changing vehicle classifications to circumvent program requirements, and the frequency of this type of activity; and

(iv) The number of parking lot sticker audits conducted, the number of vehicles surveyed in each, and the noncompliance rate found during those audits.

(e) ***Additional reporting requirements.*** **In addition to the annual reports in paragraphs (a) through (d) of this section, programs shall submit to EPA by July of every other year, biennial reports addressing:**

The Department of Natural Resources will submit this biennial report to the EPA after the second year of Gateway Clean Air Program operation is completed on December 31, 2001.

(1) Any changes made in program design, funding, personnel levels, procedures, regulations, and legal authority, with detailed discussion and evaluation of the impact on the program of all such changes; and

(2) Any weaknesses or problems identified in the program within the two-year reporting period, what steps have already been taken to correct those problems, the results of those steps, and any future efforts planned.

(f) *SIP requirements.* The SIP shall describe the types of data to be collected.

The Department of Natural Resources submitted its I/M State Implementation Plan (SIP) to the EPA on November 11, 1999. The I/M SIP was approved by the EPA on May 18, 2000.

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§ 51.371 On-road testing.

On-road testing is defined as the measurement of HC, CO, NO_X, and/or CO_2 emissions on any road or roadside in the nonattainment area or the I/M program area. On-road testing is required in enhanced I/M areas and is an option for basic I/M areas.

(a) *General requirements.*

(1) On-road testing is to be part of the emission testing system, but is to be a complement to testing otherwise required.

The Gateway Clean Air Program conducts an on-road testing program in conjunction with RapidScreen, the clean screening element of the Gateway Clean Air Program.

(2) On-road testing is not required in every season or on every vehicle but shall evaluate the emission performance of 0.5% of the subject fleet statewide or 20,000 vehicles, whichever is less, including any vehicles that may be subject to the follow-up inspection provisions of paragraph (a)(4) of this section, each inspection cycle.

The RapidScreen element collected nearly six million vehicle records during the first year of operation.

(3) The on-road testing program shall provide information about the emission performance of in-use vehicles, by measuring on-road emissions through the use of remote sensing devices or roadside pullovers including tailpipe emission testing. The program shall collect, analyze and report on-road testing data.

The results of the on-road testing are described in Volume III.

(4) Owners of vehicles that have previously been through the normal periodic inspection and passed the final retest and found to be high emitters shall be notified that the vehicles are required to pass an out-of-cycle follow-up

inspection; notification may be by mailing in the case of remote sensing on-road testing or through immediate notification if roadside pullovers are used.

Although the Gateway Clean Air Program is an enhanced I/M program, the St. Louis nonattainment area is only required to meet the basic I/M performance standard. Therefore, while the Gateway Clean Air Program is collecting, analyzing, and reporting on-road information in the RapidScreen Startup Report, owners of vehicles identified as high emitters have not, to date, been notified or required to bring their vehicle to an emission test station for an out-of-cycle test.

(b) ***SIP requirements.***

(1) The SIP shall include a detailed description of the on-road testing program, including the types of testing, test limits and criteria, the number of vehicles (the percentage of the fleet) to be tested, the number of employees to be dedicated to the on-road testing effort, the methods for collecting, analyzing, utilizing, and reporting the results of on-road testing and the portion of the program budget to be dedicated to on-road testing.

These details are described in Volume III. Because the ESP Missouri, not the Department, runs the on-road testing element in conjunction with the RapidScreen element as part of their contractual obligation, no budget numbers are given in Volume III.

(2) The SIP shall include the legal authority necessary to implement the on-road testing program, including the authority to enforce off-cycle inspection and repair requirements.

The Department of Natural Resources has the statutory authority to collect on-road information. Currently, the Department does not have the statutory authority to enforce off-cycle inspection and repair requirements.

(3) Emission reduction credit for on-road testing programs shall be granted for a program designed to obtain significant emission reductions over and above those already predicted to be achieved by other aspects of the I/M program. The SIP shall include technical support for the claimed additional emission reductions.

The Department did not claim any additional emission reduction credit from the on-road testing program, because owners of vehicles identified as high emitters have not, to date, been notified or required to bring their vehicle to an emission test station for an out-of-cycle test.

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